

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 89-011
CEASE AND DESIST ORDER

CHEVRON U.S.A., INC.,
RICHMOND REFINERY
RICHMOND, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (herein after called the Board) finds that:

1. Chevron U.S.A. Inc., (hereinafter called the discharger) owns and operates the Richmond Refinery in Contra Costa County. The discharger has manufactured over 300 different products at the refinery including gasoline, jet fuel, fuel oils, diesel, lube oil, waxes, asphalt, liquefied petroleum gas, chemicals, thinners, solvents, and catalysts. Wastes generated from these processes have been deposited at various areas around the refinery. This Order addresses one of these waste management units, a surface impoundment referred to as Pollard Pond.
2. Pollard Pond is a 3 acre Class I surface impoundment located in the northwestern portion of the refinery as shown on Figure 1. About 30,000 cubic yards of sulfuric acid sludges were deposited in 1949, and 29,000 cubic yards of bay mud dredge spoils were deposited in 1967. The acid sludge has a coal-like consistency with a very low pH (less than 2) and contains volatile, semi-volatile, acid and base-neutral extractable organic compounds, and non-hazardous levels of metals. The sludge is a hazardous waste due to its pH.
3. The pond contains a sludge layer generally underlain by dredged bay mud, though there are pockets of mud in the sludge and pockets of sludge in the mud. The average thickness of the sludge is 10 ft. and consists of a hardened tarry surficial layer and a softer tarry sludge below the surficial layer. The dredged Bay Mud is generally very soft, with moisture contents of about 100 percent by dry weight.
4. Pollard Pond is subject to the Toxic Pits Cleanup Act (TPCA) because it contains hazardous wastes and free liquids. The pond is not within one-half mile of a potential drinking water source. TPCA requires that such ponds not be used for storage of hazardous wastes containing free liquids after January 1, 1989. The discharger will not meet the January 1, 1989 deadline due to the time needed to implement its closure plan for the pond.
5. The discharger submitted a report on April 1, 1988 concerning the viability of ceasing discharge pursuant to TPCA. The discharger conducted a preliminary pump test in the dredged bay mud layer to investigate the potential for pumping out free liquids from the pond. The pump test indicated that the maximum sustainable pumping rate from a well with a 10 ft. slotted interval was less than 2 gallons per day. Therefore, due to the low permeability materials within the pond, it is not feasible to remove all of the free liquids.

6. The discharger submitted a Conceptual Recycle Closure Plan on May 2, 1988. The discharger has proposed to investigate the potential for recycling of the acid sludge layer. The discharger proposed a 30 month Research and Development Target Line Schedule for demonstrating the potential of recycling Pollard Pond waste. The Target Line Schedule began September 1, 1988. The schedule includes steps to evaluate the potential of hydrocarbon recovery by solvent extraction of the acid sludge and in situ neutralization of the dredged bay mud layer. The potential for implementation of the recycling plan is dependent upon resolution of technical and economic issues.
7. The discharger submitted a Stormwater Removal Plan on October 31, 1988. The plan outlines stormwater management for Pollard Pond to minimize infiltration into the pond. The pond is surrounded by rainwater diversion trenches and a pump is installed to remove rainwater that has fallen on the surface of the pond. The stormwater is removed by pipeline to the refinery's wastewater treatment system.
8. The Board adopted Waste Discharge Requirements (Order No. 88-044) on March 16, 1988, which prescribe prohibitions, landfill and surface impoundment closure specifications and provisions for geologic and hydrogeologic site characterizations intended to permit corrective actions to be designed to protect the waters of the State.
9. The beneficial uses of San Pablo Bay in the vicinity of the site are:
 - a. Industrial service supply
 - b. Navigation
 - c. Contact and non-contact water recreation
 - d. Commercial and sport fishing
 - e. Wildlife and estuarine habitat
 - f. Preservation of rare and endangered species
 - g. Fish migration and spawning
 - h. Shellfish harvesting
10. The potential beneficial uses of groundwater underlying the site which is deeper than 100 feet are:
 - a. Industrial process water and service supply
 - b. Agricultural supply
11. Closure of Pollard Pond will eliminate a pollutant source thereby preventing potential pollutant migration to adjacent surface and ground waters.
12. This Order is a regulatory enforcement action, exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000, et seq.) in accordance with Section 15321, Chapter 3, Title 14 of the California Code of Regulations.
13. Upon completion of the feasibility studies required by this Order, this Order will be revised to include a time schedule for completion of the recycling closure plan, if feasible, or for in-situ closure so as to comply with requirements of TPCA.

14. The Board has notified the discharger and interested agencies and persons of its intent to issue this Order and has provided them with the opportunity for a public hearing and to submit their written views and recommendations.
15. The Board, in a public hearing, heard and considered all comments pertaining to this matter.

IT IS HEREBY ORDERED, pursuant to Section 13301 of the California Water Code, that Chevron U.S.A. Inc., Cease and Desist from violating the Toxic Pits Cleanup Act of 1984, as follows:

1. The discharger shall manage stormwater removal in accordance with a Stormwater Removal Plan acceptable to the Executive Officer. The discharger inspections shall be conducted during the months October through April. The inspection reports documenting compliance with the provisions of the plan shall be submitted by the 15th of the month following the report period.
2. The discharger shall submit semi-annual status reports acceptable to the Executive Officer which address the progress made regarding each element of the recycling plan as described in the Target Line Schedule for Demonstrating Pollard Pond Recyclability (May 2, 1988). The status reports shall address 1) laboratory testing to determine potential recycle methods, 2) pilot recycling plant testing, 3) field bin design and construction demonstration studies, 4) excavation and transportation procedures, and 5) process and mechanical designs for recycling. The semi-annual reports shall be submitted on January 15 and July 15 during the 30 month research and development period. The 30 month period ends March 1991.
3. The discharger shall submit annual reports acceptable to the Executive Officer which evaluates the economic and technical viability of the recycling closure option. If it is determined that the recycling option is not a practical solution, the report shall include plans to submit an in situ closure plan within 6 months. The first report shall be due July 15, 1989.
4. The discharger shall submit a closure plan for the remaining dredged Bay Mud layer. The closure plan shall outline the procedures for in situ neutralization of the Bay Mud. The closure plan shall also demonstrate how the in situ closure meets the required performance standards of Subchapter 15 to the extent feasible.
REPORT DUE: October 30, 1990
5. If after the 30 month investigative period the recycling option is not technically or economically feasible, the discharger shall submit an in-situ closure plan acceptable to the Executive Officer.
REPORT DUE: September 1, 1991
6. If the discharger is delayed, interrupted or prevented from meeting one or more of the time schedules in this Order due to circumstances beyond his control, the discharger shall promptly notify the Executive

Officer. In the event of such delays, the Board will consider modification of the time schedules established in this Order.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on January 18, 1989.

A handwritten signature in black ink, appearing to read "Steve Ritchie", written in a cursive style.

Steven R. Ritchie
Executive Officer

Attachments:

Figure 1: Site map

